



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 10/695,632 | 10/27/2003 | Brian G. Connor | S1192.70038US01 | 6413 |

959 7590 11/21/2007
LAHIVE & COCKFIELD, LLP
ONE POST OFFICE SQUARE
BOSTON, MA 02109-2127

| |
|----------|
| EXAMINER |
|----------|

DOWE, KATHERINE MARIE

| | |
|----------|--------------|
| ART UNIT | PAPER NUMBER |
|----------|--------------|

3734

| | |
|-----------|---------------|
| MAIL DATE | DELIVERY MODE |
|-----------|---------------|

11/21/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/695,632

Applicant(s)

CONNOR ET AL.

Examiner

Katherine M. Dowe

Art Unit

3734

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 February 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-74 is/are pending in the application.
- 4a) Of the above claim(s) 4,18,19,23,27,28,32-38,54,61,64,67 and 70-74 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3,5-17,20-22,24-26,29-31,39-53,55-60,62,63,65,66,68 and 69 is/are rejected.
- 7) ☒ Claim(s) 5 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>1/16/2007</u> . | 6) <input type="checkbox"/> Other: _____ |

Art Unit: 3734

DETAILED ACTION

Election/Restrictions

1. Applicant's election without traverse of species 1a (Figs 2-5) in the reply filed on 2/23/2007 is acknowledged.
2. Claims 4, 18, 19, 23, 27, 28, 32-38, 54, 61, 64, 67, and 70-74 withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected species, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on 2/23/2007.
3. Claims 1-3, 5-17, 20-22, 24-26, 29-31, 39-53, 55-60, 62, 63, 65, 66, 68, and 69 are currently pending.

Claim Objections

4. Claim 5 is objected to because of the following informalities: Claim 5 is dependent on claim 4, which is currently withdrawn from consideration. For the purposes of examination, the Examiner assumes the applicant intends claim 5 to depend on independent claim 1. Appropriate correction is required.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Art Unit: 3734

6. Claims 1-3, 5-17, 20-22, 25, 26, 29-31, 43-48, 50-53, 55-60, 62, 63, 65, 66, 68, and 69 are rejected under 35 U.S.C. 102(b) as being anticipated by Patterson et al. (US 5,944,686). Patterson et al. disclose a surgical instrument (Figs 1 and 2) comprising a nozzle (30) for forming a liquid jet, a pressure lumen (26) to convey liquid flow (32) to the nozzle, an evacuation lumen (24, 46) comprising a jet receiving opening (36) opposite the nozzle, a stationary non-liquid tissue-cutting component (40) to excise tissue during the surgical procedure. The proximal end of the evacuation lumen may be interpreted as the tissue receptacle since the evacuation lumen draws debris and effluent away from the surgical site (col 3, ln 32). The pressure lumen is capable of conveying a high-pressure liquid of 50,000 psig (col 3, ln 14-16). The distal end of the instrument is capable of being inserted into the spine of a patient. The proximal end of the instrument comprises a handle (50).

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.

Art Unit: 3734

2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

9. Claims 1-3, 5-17, 20-22, 24-26, 29-31, 39-53, 55-60, 62, 63, 65, 66, 68, and 69 are rejected under 35 U.S.C. 103(a) as being unpatentable over Moutafis et al. (WO 00/69348) in view of Patterson et al. (US 5,944,686). Moutafis et al. disclose the invention substantially as claimed including a surgical instrument (Fig 1) comprising a nozzle (116) for forming a liquid jet, a pressure lumen (110) to convey liquid flow (120) to the nozzle, an evacuation lumen (112) comprising a jet receiving opening (118) opposite the nozzle, and a tissue receptacle (140) to contain excised tissue. The pressure lumen is capable of conveying a high-pressure liquid of 50,000 psig (pg 23, ln 26-27). The distal end of the instrument is capable of being inserted into the spine of a patient. The proximal end of the instrument comprises a handle (106). The evacuation lumen is shaped and positionable to enable evacuation of essentially all of the liquid comprising the liquid jet without the need of for an external source of vacuum (pg 25, ln 31 – pg 26, ln 2). A portion of the instrument may be able to be reused, while a portion is disposed of after a single use, or the entire instrument may be disposed of after a single use (pg 26, ln 7-22).

However, Moutafis et al. do not disclose a non-liquid jet tissue-cutting component. Patterson et al. disclose a similar surgical instrument comprising a nozzle (30) for forming a liquid jet, a pressure lumen (26) to convey liquid flow (32) to the nozzle, and an evacuation lumen (24, 46) comprising a jet receiving opening (36) opposite the nozzle. Patterson teaches the distal end of the instrument may include a

Art Unit: 3734

sharpened edge and tip forming stationary non-liquid tissue-cutting component (40, 42) to excise tissue during the surgical procedure. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the device of Moutafis et al. to include a stationary non-liquid tissue-cutting component in the form of a sharpened distal end of the evacuation lumen to help excise tissue to obviate the need of introducing a second mechanical cutting instrument into the target tissue area when simple mechanical abrasion is desired.

Conclusion

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Katherine M. Dowe whose telephone number is (571) 272-3201. The examiner can normally be reached on M-F 8:30am - 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael J. Hayes can be reached on (571) 272-4959. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 3734

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Katherine Dowe *Knd*
November 19, 2007



MICHAEL J. HAYES
SUPERVISORY PATENT EXAMINER